# Reliable process checking for better quality control

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# Reliable process checking

- Reliable – Multiple systems cross check each other
- Process – A sequence of defined actions
- Checking – Every action is completed or given an excuse

# UUIDs and actions

- Someone or something authorizes construction of a wing
  - UUID when the task is authorized
  - UUID when the hole is authorized
  - UUID when the pilot hole is machined
  - UUID when the full hole is started
  - UUID when each layer is completed
  - UUID when the full hole is finished
  - UUID when the pin is placed
  - UUID when a washer is added
  - UUID when the collar is tightened
  - UUID when the sealant is added
  - UUID for location, size and form

# Four Classes of UUID

1. A UUID for each type of event (a ticket color)
2. A UUID for each planned event (a ticket number)
3. A UUID for each instance of an event (a ticket repeat)
4. A UUID for each event that happens (a ticket unique)

*Less in UUID*　　　　**Action: "Add a second washer to hole 6 in plane 200"**　　　　*More in UUID*

| Class 1 – ticket color | Class 2 – ticket number | Class 3 – ticket repeat | Class 4 – ticket unique |
|---|---|---|---|
| UUID = Add a washer | UUID = Add a second washer | UUID = Add a second washer to hole 6 | UUID = Add a second washer to hole 6 on plane 200 |
| Listener needs to know this is the 2nd washer | Listener needs to know this is hole 6 | Listener needs to know this is plane 200 | Listener needs to know nothing |

# Perspectives

- Class 1 is the AP242 perspective
- Class 2 is the MTConnect perspective
- Class 3 is the QIF perspective
- Class 4 is the reliable process checking perspective

Must enable them all

# Representing the classes

- How to represent the classes
  - Compound – UUID1.UUID2.UUID3.UUID4 (512 bytes)
    - design, planning, manufacturing, inspection
    - property, workingstep, feature, part
  - Computed – UIID1+UUID2+UUID3+UUID4 (128 bytes)
    - UUID2 = UUID1 + sequence number
    - UUID3 = UUID2 + feature number
    - UUID4 = UUID3 + serial number
- Can a UUID exist before its data / what about the excuses
- Where/What is the authoritative source for the meaning